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Sequence Listing was accepted.

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Reviewer: Saleem, Syed (ASRC)

Timestamp: [year=2011; month=8; day=2; hr=9; min=40; sec=13; ms=350;]

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Application No: 10576757

Version No: 7.0

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Input Set:

Output Set:

Started: 2011-07-25 18:52:42.137
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Actual SeqID Count: 30

Error code

Error Description

This error has occurred more than 20 times, will not be displayed

SEQUENCE LISTING

<110> Winter Sederoff, Heike
Huber, Steven C
Larabell, Carolyn A

<120> SYNTHETIC PEPTIDES THAT CAUSE F-ACTIN BUNDLING AND BLOCK ACTIN
DEPOLYMERIZATION

<130> JIB-1571

<140> 10576757
<141> 2011-07-25

<150> US 60/513,275
<151> 2003-10-20

<160> 30

<170> PatentIn version 3.5

<210> 1
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<213> Artificial

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<223> synthetic consensus active Zea mays Sucrose Synthase (SuSy)
peptide

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<223> synthetic peptide derived from Zea mays SuSy3 protein

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<223> synthetic peptide derived from Drosophila melanogaster Actin 2
protein and Homo sapiens beta and gamma Actin proteins

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Glu His Gly Ile Val Thr Asn Trp Asp Asp Met Glu Lys Ile Trp
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<210> 6

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<223> synthetic peptide derived from Drosophila melanogaster Actin 3,
5, and 6 proteins and Homo sapiens alpha Actin protein

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1 5 10 15

<210> 7

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<400> 9

Gly	Asp	Arg	Val	Leu	Ser	Arg	Leu	His	Ser	Val	Arg	Glu	Arg	Ile	Gly
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Lys

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<400> 10

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Lys Lys

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<400> 11

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<223> replaced Tryptophan residue with Alanines

<220>
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<222> (13)..(13)
<223> replaced Tryptophan residue with Alanine

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1 5

<210> 15
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<212> PRT
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<223> NR11 inactive synthetic peptide

<400> 15

Gly Pro Thr Leu Lys Arg Thr Ala Ser Thr Ala Phe Met Asn Thr Thr
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Ser Lys Lys

<210> 16
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<220>
<223> SP26 inactive synthetic peptide

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Trp Ile Ser Arg Phe Glu Val Trp

1 5

<210> 18
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<220>
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Arg Arg Ile Ser Ser Val Glu Asp Lys Lys
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<210> 19
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consensus sequence

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His Thr Phe Tyr
20

<210> 20
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<220>
<223> synthetic peptide derived from Homo sapiens ARP1 protein

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<210> 21
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1 5 10 15

<210> 22

<211> 6

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<223> Core minimum block of SS12 sequence required for less active
synthetic peptide

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Ser Arg Phe Glu Val Trp
1 5

<210> 23

<211> 13

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<223> SS synthetic peptide B

<400> 23

Trp Ile Ser Arg Phe Glu Val Trp Pro Tyr Leu Lys Lys
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<210> 24

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<223> SS synthetic peptide C

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1 5 10 15

Tyr Leu Lys Lys
20

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<223> X=His or Asn

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<222> (5)..(5)

<223> X= Val or Leu or Ile

<220>

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<222> (6)..(6)

<223> X= Arg or Thr or Lys

<220>

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<222> (7)..(7)

<223> X= Lys, Asn, Asp

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<222> (9)..(9)

<223> X= Ile or Asp or Asn

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<222> (10)..(10)

<223> X= Ser or Asp

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<223> X= Arg or Met

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<222> (12)..(12)

<223> X= Glu, Phe, Cys, or Lys

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<221> VARIANT

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<223> X= Glu, Asp, Lys, Arg, or His

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<221> VARIANT

<222> (14)..(14)

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<222> (17)..(17)
<223> X= His or none

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Glu	Xaa	Gly	Ile	Xaa	Xaa	Xaa	Trp	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Trp	Xaa
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Xaa	Xaa	Xaa	Xaa
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<210> 26
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<223> Motif for a synthetic peptide which causes actin bundling and
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<220>
<221> VARIANT
<222> (2)..(2)
<223> X = any amino acid

<220>
<221> VARIANT
<222> (4)..(4)
<223> X = Ile or Val

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<221> VARIANT
<222> (5)..(7)

<223> X = any amino acid

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<221> VARIANT

<222> (9)..(14)

<223> X = any amino acid

<400> 26

Glu Xaa Gly Xaa Xaa Xaa Xaa Trp Xaa Xaa Xaa Xaa Xaa Xaa Trp
1 5 10 15

<210> 27

<211> 15

<212> PRT

<213> Artificial sequence

<220>

<223> Motif for a synthetic peptide that causes actin bundling and
inhibits actin depolymerization

<220>

<221> VARIANT

<222> (2)..(2)

<223> X= Lys, Arg, or His

<220>

<221> VARIANT

<222> (5)..(5)

<223> X= Ala, Val, Leu, Ile, Phe, Trp, Pro, or Met

<220>

<221> VARIANT

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<223> X= Lys, Arg, or His

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<221> VARIANT

<222> (7)..(7)

<223> X= any amino acid

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<221> VARIANT

<222> (9)..(13)

<223> X= any amino acid

<220>

<221> VARIANT

<222> (14)..(14)

<223> X= Ala, Val, Leu, Ile, Phe, Trp, Pro, or Met

<400> 27

Glu Xaa Gly Ile Xaa Xaa Xaa Trp Xaa Xaa Xaa Xaa Xaa Xaa Trp
1 5 10 15

<210> 28
<211> 16
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<213> Artificial Sequence

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<223> Formula (I) for active synthetic peptides

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<223> X = Ile, Val, or Leu

<220>
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<222> (4)..(4)
<223> X = Arg, Lys, Asn, or Thr

<220>
<221> VARIANT
<222> (5)..(5)
<223> X = Arg, Lys, Asn, or Asp

<220>
<221> VARIANT
<222> (7)..(7)
<223> X = Ile, Asp, Asn, or Glu

<220>
<221> VARIANT
<222> (8)..(8)
<223> X = Ser, or Asp

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<221> VARIANT
<222> (9)..(9)
<223> X = Arg, Met, or Ala

<220>
<221> VARIANT
<222> (10)..(10)
<223> X = Phe, or Glu

<220>
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<222> (11)..(11)
<223> X =Asp, Glu, Lys, Arg, or His

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<222> (12)..(12)
<223> X =Val, or Ile

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<222> (14)..(14)
<223> X =Pro, or His

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<222> (15)..(15)
<223> X =Tyr, or His

<220>
<221> VARIANT
<222> (16)..(16)
<223> X =Leu, or Thr

<400> 28

Gly Ile Xaa Xaa Xaa Trp Xaa Xaa Xaa Xaa Xaa Xaa Trp Xaa Xaa Xaa
1 5 10 15

<210> 29
<211> 13
<212> PRT
<213> Artificial Sequence

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<223> Formula (II) for synthetic active peptides

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<222> (3)..(3)
<223> X = Ala, Val, Leu, Ile, Phe, Trp, Pro, or Met

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<221> VARIANT
<222> (4)..(4)
<223> X = Lys, Arg, or His

<220>
<221> VARIANT
<222> (5)..(5)
<223> X = any amino acid

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<222> (7)..(11)
<223> X = any amino acid

<220>
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<222> (12)..(12)
<223> X = Ala, Val, Leu, Ile, Phe, Trp, Pro, or Met

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<212> PRT

<213> Artificial sequence

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<223> SS2 and SS12 subsequence necessary for peptide activity

$\langle 400 \rangle$ 30

Gly Ile Val Arg Trp Lys Ile

1

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